

REMARKS/ARGUMENTS

Claims 15-28 are active in this application. Support for the amendment to Claim 15 is found on page 6, lines 33-34 and page 7, lines 12-14. No new matter is believed to have been added by these amendments.

As set forth in amended Claim 15, the alkylglycol alkoxylate or alkyldiglycol alkoxylate is free from alcohol and has the homolog distribution specific for alkylglycols and is obtained by a process in which specific alkylglycols or diglycols are alkoxylated with specific alkoxide to an average degree of alkoxylation of from 1-8.

As shown in the specification in the table on page 7 (reproduced below), the alkoxylate prepared through such an alkoxylation reaction has a different homolog distribution than an alkoxylate that is derived from the corresponding alcohol by alkoxylation (as described in the Evers disclosure). This table shows the distribution curves for a customary n-hexanol ethoxylate (+3 EO), derived from n-hexanol, and an n-hexylglycol ethoxylate (+2 EO), derived from n-hexylglycol, side by side. The first column gives the amount of ethylene oxide (0-6) bonded to the n-hexyl radical (C6). On average, the two compounds contain the same amount of EO units.

Area %		
Chemistry	n-Hexanol + 3 EO	n-Hexylglycol + 2 EO
C6 E00	2.4	0
C6 E01	5	8.3
C6 E02	10.2	20.3
C6 E03	13.5	24.6
C6 E04	14.3	19.4
C6 E05	13.5	12.9
C6 E06	11.2	7.5
Remainder	29.9	7

The second column of this table shows that homologs having 2, 3, 4, 5 and 6 equivalents of ethylene oxide are each present in the homolog mixture in an amount of about 13% by weight with an additional 29.9% remainder present. The third column of this table shows that the alkoxylates according to the present invention show completely different homolog distribution whereby the homolog bearing three equivalents (C6 EO3) of ethylene oxide is present in the major amount of 24.6% whereas the homologs bearing 2 or 4 (C6 EO2 or C6 EO4) equivalents of ethylene oxide are present in the amount of 20.3 or 19.4% by weight. The other homologs are present only in minor amounts of 8.3 or 7.5% with the remainder being 7% by weight.

This table, therefore, shows that the alkoxylate prepared by the conventional means of condensation of the corresponding alcohol as in Evers results in a different material than that defined in the claims which is free from alcohol and which has a homolog distribution specific for alkylglycol results.

As has been discussed in Applicants previous response, Evers describes a cosurfactant having a short chain surfactant comprising a C6-C10 alkyl chain as its hydrophobic portion (see page 2, lines 40-45) which is prepared by known processes such as condensation in the corresponding alcohol and alkylene oxide (referencing page 3, lines 32-34). Thus the Evers disclosure relates to the material shown in the table in the second column and demonstrates quite clearly that the material in Evers is quite different from that being claimed.

Oldenhove on the other hand doesn't describe how the water soluble water dispersible amphiphiles are prepared but it is reasonable to presume that Oldenhove also uses the conventional condensation of the corresponding alcohol as described in Evers. Thus, the material described in Oldenhove is also different for the reasons discussed above, i.e., Oldenhove does not describe an alkoxylate as claimed which is free from alcohol and which has the homolog distribution specific for alkylglycols results.

Why is it that the homolog distribution and the absence of alcohol are important in the present invention? As discussed in the specification on page 5 the specific homolog distribution has a positive effect on wetting ability of wetting auxiliaries even in dilute systems and for increasing the solubility of wetting auxiliaries and aqueous formulations comprising nonanionic surfactants. The alkoxyates in the claims have the homolog distribution important for aggregation behavior and for other properties specifically without containing alcohol (see page 4, lines 12-14).

Indeed, the examples presented in the specification demonstrate the advantageous behavior of the alkoxyates being claimed. In the examples starting on page 13 there are presented two examples; Example 1 and Example 2. Example 1 shows that the use of the hexylglycol ethoxylate enables the reduction of surfactant considerably. Example 2 shows that there are particular advantages for using the claimed alkoxyates in terms of the interfacial tension. The paper finishing example on pages 14-15 shows that the inventive alkylglycol alkoxyates significantly improve the uniformity of an image that is printed on a treated paper (as outlined in the table on page 15). As neither Evers nor Oldenhove describe the manner in which the alkoxyates are obtained (as defined in Claim 15) and Applicants have discussed why the alkoxyates prepared in this manner are different from those described in Evers and Oldenhove, the claims are not anticipated by nor obvious in view of Evers or Oldenhove.

Accordingly, Applicants request that the rejections under 35 USC 102(b) and 35 USC 103(a) in view of Evers and Oldenhove be withdrawn.

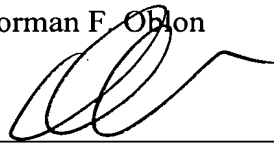
With respect to the double patenting rejection in view of U.S. Patent No. 6,680,412 this patent also describes obtaining the alkoxyates by reacting alcohol with alkylene oxide (see Claim 7 in column 12 of the cited patent). As discussed in detail above the preparation

of alkoxyates through a reaction with the corresponding alcohol and alkylene oxide results in a mixture containing residual alcohol and a homolog distribution that differs from homolog distribution of alkylates according to a methodology as set forth in Claim 15. Accordingly, the claims of the present application are not obvious in view of the claims of U.S. '412 patent and as such withdrawal of this rejection is again requested.

A Notice of Allowance is requested for all pending claims. Should the Examiner deem that any further action is required to place this application in even better form for allowance, he is invited to contact the Applicants' undersigned representative.

Respectfully submitted,

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